

CLAIMS

1. A process for the removal of arsine (AsH_3) from a hydrocarbon stream having an atmospheric boiling point lower than about 0 °C, by contacting the hydrocarbon stream with an adsorbent that contains elemental sulphur deposited on a support material
2. A process according to Claim 1, characterized in that the hydrocarbon stream contains propane, propylene, ethane, ethylene, methane and/or acetylene
3. A process according to any one of Claims 1-2, characterized in that the amount of sulfur is in the range between 2 and 25 wt.% relative to the total amount of sulfur and support material
4. A process according to any one of Claims 1-3, characterized in that the support material is silica, alumina, silica/alumina, titania, zeolites, activated carbon and/or magnesia.
5. A process according to Claim 4, characterized in that the support material is activated carbon.
6. A process according to any one of Claims 1-5, characterized in that besides arsine also mercury is removed from the hydrocarbon stream.